

IN THE CLAIMS:

1. (Canceled)
2. (Currently amended) A recombinant adenovirus of a subgroup C origin having a reduced tissue tropism for liver cells as compared to the corresponding *wild type* adenovirus of subgroup C origin, said recombinant adenovirus comprising:
~~at least a region of a capsid comprising a chimeric fiber protein, comprising a tissue tropism determining fragment wherein a knob domain of an adenovirus, said chimeric fiber protein being a fiber protein of an adenovirus is of an adenovirus origin selected from the group consisting of adenovirus 12, adenovirus 16, adenovirus 28 and adenovirus 40-L.~~
- 3 – 20. (Canceled)
21. (Previously presented) A composition comprising:
the recombinant adenovirus of claim 2; and
a suitable vehicle.
- 22 – 24. (Canceled)
25. (Currently amended) An adenovirus capsid having a reduced tropism for liver cells as compared to the corresponding *wild type* adenovirus capsid, said adenovirus capsid comprising:
~~proteins from at least two different adenoviruses a fiber protein of an adenovirus of subgroup C origin; and~~
~~wherein at least one of the proteins includes at least a knob domain a tissue tropism determining fragment of a the fiber protein, said fiber protein being a fiber protein is of an adenovirus origin selected from the group consisting of adenovirus 12, adenovirus 16, adenovirus 28, and adenovirus 40-L.~~

26 – 27. (Canceled)

28. (Previously presented) A construct deposited with the ECACC under deposit number 01121708.

29. (Previously presented) A construct deposited with the ECACC under deposit number 01121710.

30. (Previously presented) A construct deposited with the ECACC under deposit number 01121709.

31. (Previously presented) A construct deposited with the ECACC under deposit number 01121711.

32. (Previously presented) A construct deposited with the ECACC under deposit number 0112712.

33 – 36. (Canceled)

37. (Currently amended) A method for reducing a tissue tropism of an adenovirus capsid of a subgroup C origin for liver cells as compared to the corresponding *wild type* adenovirus capsid, said method comprising:

- i) exchanging a first nucleic acid encoding a tissue-tropism determining fragment knob domain of a fiber protein of the adenovirus of subgroup C origin for a second nucleic acid encoding a tissue-tropism determining fragment knob domain of a fiber protein of an adenovirus, said adenovirus selected from the group consisting of adenovirus 12, adenovirus 16, adenovirus 28, and adenovirus 40-L;
- ii) introducing the resulting nucleic acid from step i) into a cell capable of producing said adenovirus capsid; and
- iii) allowing said cell to produce said adenovirus capsid, thus reducing the tissue tropism of the adenovirus capsid for liver cells as compared to the corresponding *wild type* adenovirus capsid.

38 – 43. (Canceled)

44. (Currently amended) A recombinant adenovirus of a subgroup C origin having an increased tropism for smooth muscle cells when compared to an adenovirus of serotype 5 comprising:

a recombinant adenovirus capsid comprising peptides from a fiber protein, wherein at least two different adenoviruses a knob domain of the fiber protein is of an adenovirus of a subgroup B origin;

wherein said recombinant adenovirus capsid has an increased tissue tropism for endothelial cells or smooth muscle cells when compared to other adenovirus capsids of the corresponding *wild type* adenovirus;

wherein at least one of said peptides comprises a tissue-tropism determining region of a fiber protein of an said adenovirus of subgroup B origin is selected from the group consisting of adenovirus 11, adenovirus 16, adenovirus 35, and adenovirus 51.

45 – 50. (Canceled)

51. (Previously presented) The recombinant adenovirus of claim 44, further comprising an adenoviral nucleic acid incorporated within a genome of said recombinant adenovirus.

52 – 53. (Canceled)

54. (Previously presented) The recombinant adenovirus of claim 51, wherein said adenoviral nucleic acid is modified such that the capacity of said adenoviral nucleic acid to replicate in a target cell has been reduced or disabled.

55. (Canceled).

56. (Previously presented) The recombinant adenovirus of claim 44, further comprising at least one non-adenoviral nucleic acid incorporated within a genome of said recombinant adenovirus.

57. (Previously presented) The recombinant adenovirus of claim 56, wherein at least one of said non-adenoviral nucleic acids is a gene encoding a protein selected from the group of proteins consisting of: an apolipoprotein, a nitric oxide synthase, a herpes simplex virus thymidine kinase, an interleukin-3, an interleukin-1 α , an angiogenesis protein, an anti-angiogenesis protein, an anti-proliferation protein, a smooth muscle cell anti-migration protein, a vascular endothelial growth factor, a basic fibroblast growth factor, a hypoxia inducible factor 1 α and a PAI-1.

58. (Currently amended) A recombinant adenovirus capsid having an increased tropism for ~~endothelial cells or~~ smooth muscle cells as compared to the corresponding *wild type* adenovirus, said recombinant adenovirus capsid comprising:

peptides from a chimeric fiber protein, wherein at least two different adenoviruses a knob domain of the chimeric fiber protein is of an adenovirus of subgroup B origin; and

~~wherein at least one of the peptides comprises at least a tissue tropism determining region of a fiber protein, said fiber protein being a fiber protein of an the adenovirus of subgroup B origin is~~ selected from the group consisting of adenovirus 11, adenovirus 16, adenovirus 35, and adenovirus 51;

wherein a remaining part of the chimeric fiber protein is of an adenovirus of a subgroup C origin.

59. (Previously presented) The recombinant adenovirus of claim 44, wherein said subgroup B adenovirus is adenovirus 16.

60. (Currently amended) A recombinant adenovirus having a capsid with an increased tropism for smooth muscle cells ~~or endothelial cells~~ as compared to the corresponding *wild type* adenovirus, said recombinant adenovirus comprising:

a chimeric fiber protein comprising at least the knob domain of a fiber protein of an adenovirus selected from the group consisting of adenovirus 11, adenovirus 16, adenovirus 35, and adenovirus 51;

wherein ~~the~~ a remaining part of the chimeric fiber protein is of a ~~different~~ an adenovirus serotype of a subgroup C origin.

61. (Previously presented) The recombinant adenovirus of claim 60, further comprising an adenoviral nucleic acid incorporated within a genome of said recombinant adenovirus.

62. (Previously presented) The recombinant adenovirus of claim 61, wherein said adenoviral nucleic acid comprises a sequence encoding the chimeric fiber protein.

63 - 64. (Canceled).

65. (Currently amended) The recombinant adenovirus of claim [[64]] 60, wherein said adenovirus of subgroup C origin is adenovirus serotype 5.

66 – 68. (Canceled)

69. (Currently amended) A recombinant adenovirus capsid having a reduced tropism for liver cells as compared to the corresponding *wild type* adenovirus, said recombinant adenovirus comprising:

a chimeric fiber protein comprising at least the knob domain of a fiber protein of adenovirus serotype 16;

wherein the remaining part of the fiber protein is of ~~a different~~ an adenovirus ~~serotype of~~ of a subgroup C origin.

70. (Canceled).

71. (Currently amended) The adenovirus capsid of claim ~~70~~ 69, wherein said adenovirus of subgroup C origin is adenovirus serotype 5.